

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
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In the Matter of )  
 )  
Revision of the Commission's Rules ) CC Docket No. 94-102  
to Ensure Compatibility With )  
Enhanced 911 Emergency Calling Systems )

COMMENTS OF AMERITECH

Ameritech respectfully submits these Comments in response to the  
Federal Communications Commission's ("Commission's") Notice of  
Proposed Rulemaking<sup>1</sup> in this matter.

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I. INTRODUCTION AND SUMMARY

The Commission's efforts to ensure the timely and broad availability of  
emergency calling services are to be applauded. As aptly noted in the NPRM,  
"(i)t is difficult to identify a nationwide wire or radio communication service  
more immediately associated with promoting safety of life and property than  
911."<sup>2</sup> There is no clearer illustration of the importance of the Commission's  
statutory mandate to protect the public safety than the task which it has  
undertaken in this proceeding.

As the NPRM notes in several areas, significant industry efforts are  
well underway in areas spanning virtually the entire breadth of this  
proceeding. Ameritech submits that the "hands-on" approach suggested in  
the NPRM may risk achieving the Commission's goals by mandating specific  
solutions and implementation plans before these solutions and plans are

<sup>1</sup> In the Matter of Revision of the Commission's Rules to Ensure Compatibility With Enhanced  
911 Emergency Calling Systems, CC Docket No. 94-102, Notice of Proposed Rule Making,  
adopted September 19, 1994 ("NPRM").

<sup>2</sup> NPRM, at 5 (¶ 7).

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fully developed. To speed the ultimate availability of many of the advanced 911 capabilities at issue, ongoing industry efforts must be permitted to more completely establish the technical, economic and interoperability frameworks required to bring these capabilities to fruition.

Moreover, in addition to inadvertently impeding current industry efforts, the more directive regulatory techniques suggested in several areas of the NPRM could actually delay the ultimate availability of advanced 911 services by entangling the Commission (and, quite possibly, state regulators as well) in complex, unrelated areas including questions of legal liability, as well as day-to-day network operations and administration. A more effective approach might be for the Commission to use its already-scarce resources to establish broad policy goals and objectives, toward which the ongoing industry efforts would be directed. Detailed planning and feasibility assessment will then be conducted by appropriate industry standards and administrative bodies to achieve the policy objectives chosen by the Commission.

Further examples of these concepts are set forth in the sections which follow, addressing the NPRM's specific requests for comment.

## II. COMPATIBILITY OF PBX EQUIPMENT WITH 911 SYSTEMS

In the NPRM, the Commission proposes detailed amendments to Part 68 of its rules to assign various entities specific responsibilities for 911 service development and deployment.<sup>3</sup> Several of these suggested changes specify not only the end policy goals desired by the Commission, but also the precise operational measures to be implemented in achieving those goals. To that

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<sup>3</sup> NPRM, at 13 (¶ 21).

end, it is proposed by the Commission that the purpose of Part 68 be amended to include "... the **correct operation of terminal equipment** with public emergency access networks ... ."4

Such changes would involve the Commission in operational decision-making at an unprecedented level of detail. The proposed changes range from a requirement that local exchange carriers be required to record the FCC certification numbers of all PBX equipment used by their customers, down to a specification of minimum training, supervision and experience levels for installers performing verification testing.<sup>5</sup> The Commission's already-scarce resources should not be committed to either specifying or enforcing rules concerned with such minute details of business operations.

Other proposals would also immerse the Commission in planning and operational decision making. For example, imposing a requirement that SS7-based capabilities must be implemented by a specific date<sup>6</sup> would place the Commission in the position of a network planner committing capital investment on behalf of 911 service providers. Mandatory technology deployment schedules are beyond the traditional activities of the Commission.

Similarly, the imposition of a blanket requirement that PBX station users "should have the ability to reach emergency services by dialing 911

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<sup>4</sup> NPRM, at 36 (new Section 68.1); emphasis added.

<sup>5</sup> NPRM, at 37-8 (new Section 68.228).

<sup>6</sup> NPRM, at 26 (¶ 53).

without having to dial any additional digits"<sup>7</sup> would likely require major expenditures by equipment manufacturers (to develop and support code conflict tables and other software and hardware), service providers (to re-educate and re-train end users who now understand that "dialing 9" gets "outside dialtone"), and end user customers (to purchase, maintain and administer equipment with such new capabilities). Previous industry trials of such "no extra digits" arrangements have revealed the implementation intricacies and extent of customer confusion. Service provider requirements and customer needs may best be served in open industry fora where users, manufacturers, and service providers can work out the optimal arrangements. Commission involvement in such specific, complex matters might sidetrack or delay the cooperative efforts already underway in this area.

A better approach might be to specify broad policy objectives and general areas of responsibility for industry participants under those objectives. For example, the Commission might require local exchange providers ("LECs") to provide PBX owners with access to the emergency service network permitting transport of ALI, rather than mandating a detailed industry standard for the interface. As the Commission notes, industry efforts to develop such a standard are already underway.<sup>8</sup> Explicit reference in the rules to such a nationwide standard is unnecessary and may be counterproductive overall.

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<sup>7</sup> NPRM, at 12 (¶ 22).

<sup>8</sup> NPRM, at 14 (¶ 27).

### III. COMPATIBILITY OF WIRELESS SERVICES WITH E911

Ameritech concurs completely with the Commission's perception of "support for incorporating enhanced 911 technology in mobile telephone networks."<sup>9</sup> The public's desire for 911 access from wireless services has been clearly apparent for years to wireless service providers, including Ameritech's cellular affiliate.

However, Ameritech strongly disagrees with the Commission's explicit characterization of the CMRS industry in general, and the cellular industry in particular, as obstructionists in the industry's efforts to make emergency calling capabilities broadly available to the public.<sup>10</sup> In fact, the cellular industry has been extremely active in specifying, developing and deploying the infrastructure and interfaces which will be required to make such services ubiquitously available to customers using wireless and wireline services alike. The very convergence of these technologies which the Commission has foreseen in its PCS proceeding<sup>11</sup> provides further impetus to ongoing industry-wide efforts to develop the capabilities.

The present status of 911 availability to customers using wireless services is in no sense the result of any lack of effort on the part of any industry participants. To the contrary, it is the obvious intent of the wireless

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<sup>9</sup> NPRM, at 18 (¶ 36).

<sup>10</sup> See NPRM, at 17 (fn 38), alleging that "(b)ased on our experience with cellular and other mobile radio services, it appears doubtful that enhanced 911 interface capability will be implemented voluntarily." To the contrary, Ameritech already provides basic 911 capabilities throughout nearly its entire cellular service area. In some localities, Ameritech already complies with most aspects of the NPRM's "Phase I" proposal as described at ¶ 49 & 50 of the NPRM.

<sup>11</sup> The very definition of Personal Communications Services recognizes that PCS will "be integrated with a variety of competing networks." Notice of Proposed Rule Making and Tentative Decision, GEN Docket No. 90-314 and ET Docket No. 92-100, 7 FCC Rcd 5676 (1992), at 5682 (¶ 29).

industry to meet customers' demand for emergency calling capabilities. Compared to its early perception as a high-end, business user service, cellular is now truly a personal communications service. Continuing price level reductions across the industry, the increasing proportion of portable (as compared to vehicular) equipment sales, and marked consumer shifts toward safety and security interests have made it clear that customers will continue to demand emergency access from their wireless service providers.

The factors involved in development and deployment of wireless 911 capabilities are, if anything, even more difficult and complex than those at work in corresponding dynamics of wireline access to emergency services. First of all, the very mobility which defines wireless service carries inherent complexities in this regard. Simply put, to "free users from the geographic constraints of wireline telecommunications services"<sup>12</sup> is to remove, as a characteristic of communications, the physical location upon which emergency response depends. This fact is precisely why, unlike the situation in wireline telephony, entirely new technological solutions are now required to reconstruct the physical location information which the very nature of wireless services has erased.

In a real sense, the mobility afforded by wireless services also affects customer expectations and behaviors with respect to emergency calling services. Experience has shown that most cellular calls to emergency services are from "good samaritans" who notify response personnel of emergency conditions or accidents which they see while passing by (i.e., moving away from the accident site). This fact, coupled with the typical occurrence of multiple calls per incident and intercell call handoff during a single call,

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<sup>12</sup> Notice of Inquiry, GEN Docket No. 90-314, 5 FCC Rcd 3995 (1990), (¶ 2).

obviously complicates the call routing and response decisions far beyond those involved in handling a landline emergency call. Indeed, the callers' geographic locations and telephone "callback" number may be relatively unimportant to response personnel in such a case, which may involve multiple PSAPs, moving "geolocations", and callers who are in no way involved in the incidents which they report.

The evolution of the wireless marketplace has also taken it down a less traditional path in a commercial sense. Since cellular radio technology became practical nearly a hundred years after wireline telephony, it was not originally conceived as a component of Universal Service; hence, the traditional subsidy-style funding of high cost and so-called "lifeline" services was not a part of the initial costing construct of wireless services. As a result, the funding for wireless technology development and deployment has not been a publicly-shared societal responsibility, such as would be amenable to a "surcharge" solution. Consequently, funding has been, and will continue to be, a major issue not only for service providers, but also for many emergency response agencies, whose revenue sources (largely municipal, state and county governments) may have been increasingly thinly-stretched.

These characteristics of the wireless services marketplace, and of its customers' needs and underlying technologies have, to date, made industry discussions and decisions extremely complex. At the same time, they also make an industry-generated solution even more desirable. If the Commission were to mandate detailed operational and funding responsibilities for wireless access to enhanced 911 capabilities, the resulting gridlock would needlessly delay the ultimate availability of these important capabilities. A few specific examples follow.

As the NPRM notes, the technologies which will make possible the association of detailed geographic location with a wireless caller are in their technical and commercial infancy.<sup>13</sup> The Commission should defer any technology assessment and selection to the various ongoing industry efforts in this area. Trials of these technologies (perhaps under Commission auspices or reporting requirements) will doubtless aid the industry's understanding and selection process regarding this important field as it emerges. Alternative approaches such as Intelligent Vehicle/Highway Systems ("IVHS") may also hold promise in either an integral or supplemental role.

In addition, the questions involving potential liability for problems resulting from wireless customers' use of emergency calling capabilities may also be more convoluted than those involved in wireline access. Examples include the possibilities of dropped calls (which could occur for any number of reasons), calls which may "skip cells" (i.e., those which are received at a more distant location than the nearest cellsite), busy channel conditions (which may occur at the cell site, on the cellular network, or at the PSAP), and inaccurate geolocation information (whether due to technology limitations, outdated data, or equipment malfunction). The Commission should recognize these possible problems and thus avoid adopting specific, detailed rules which may prematurely fix future responsibilities at this early date.

As the Commission has already recognized in various proceedings related to wireless services development, competitive equity among similarly-situated services and participants should be a central goal in this matter. The corresponding congressional mandate which underlies the

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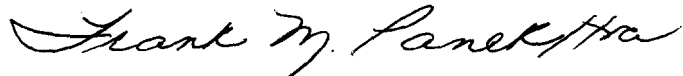
<sup>13</sup> NPRM, at 23-25 (¶¶ 45-51). The APCO-sponsored report referred to at ¶ 47 provides an excellent overview of the various current geolocation technologies under industry consideration.

current effort to unify regulatory principles as applied to all Commercial Mobile Radio Services ("CMRS")<sup>14</sup> applies equally well in the context of this Docket. Thus, as a general principle, responsibilities which may be imposed upon wireless service providers with respect to access to enhanced 911 services should apply in an evenhanded manner to all CMRS providers.

#### IV. CONCLUSION

The Commission's efforts in this Docket are to be commended as a valuable exercise of its authority for the promotion of the safety of life and property in accordance with the finest traditions of its congressional mandate. Given the judicious use of this authority to stimulate and direct the telecommunications industry's ongoing efforts to develop and deploy advanced emergency calling capabilities in the most rapid and efficient manner, the achievement of the Commission's end goals will be assured.

Respectfully submitted,



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<sup>14</sup> Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, Title VI, 107 Stat. 312 (1993).